THE ANNALS

AND

MAGAZINE OF NATURAL HISTORY.

[SEVENTH SERIES.]

No. 81. SEPTEMBER 1904.

XXVI.—The Lepidoptera-Phalene of the Bahamas. By Sir George F. Hampson, Bart., B.A., F.Z.S., &c.

THE following list of moths from the Bahamas is supplementary to that published in the 'Annals' (7) vii. p. 246 (1901).

Syntomidæ.

Syntomeida syntomoides, Boisd. Spéc. Gén. Lép. i. pl. xvi. fig. 4 (1836).

Nassau (Sir G. Carter); Andros (Neville Chamberlain).

Lymire Edwardsi, Grote, Pap. i. p. 4 (1881).

Abaco (P. A. Meers); Nassau (Sir G. Carter).

The Nassau specimens are like those from Florida; the males from Abaco have the fore wing whiter, the hind wing without brown on the veins and termen; the female of both forms has the hind wing wholly suffused with brown.

Arctiadæ.

LITHOSIANÆ.

Mulona nigripuncta, Hmpsn. Cat. Lep. Phal. B. M. ii. p. 387, pl. xxix. fig. 6 (1900).

Abaco (P. A. Meers); Andros (Bonhote).

ARCTIANÆ.

Ammalo insulata, Wlk. iii. 734 (1855); Hmpsn. Cat. Lep. Phal. B. M. iii. p. 84, pl. xxxvii. fig. 14.

Andros (Bonhote).

Halisidota cinctipes, Grote, Proc. Ent. Soc. Philad. v. p. 242 (1865).

Nassan (Sir G. Carter).

Halisidota albipennis, sp. n.

Q. Head and thorax white; tegulæ and patagia with indistinct fuscous annuli; palpi with fuscous marks at sides; legs with slight fuscous bands, the fore femora yellow above; abdomen white, dorsally yellow except at extremity. Fore wing white, with numerous waved interrupted fuscous lines, forming obscure annuli; an antemedial semicircular mark on costa; a discoidal lunule, with ill-defined oblique band formed by the waved lines from it to inner margin. Hind wing pure white.

Hab. Nassau (Sir G. Carter), 2 \, type. Exp. 50-54 mm.

Apantesis bicolor, sp. n.

3. Head and thorax black; abdomen scarlet, with dorsal series of large, partly conjoined, quadrate black spots, a lateral series of somewhat triangular spots, the extremity and ventral surface black. Fore wing uniform black. Hind wing scarlet; the costal area and termen towards apex black; a subterminal black point below vein 2. Underside with short scarlet streaks on base of costa of both wings, the retinaculum scarlet.

Another specimen has three subterminal black spots on hind wing; a third has the costal half of hind wing black; and a fourth has a crimson ring on neck, fore wing with pale crimson fascia on costa to beyond middle, a small white spot at lower angle of cell, the cilia pale, hind wing with the costal half pale.

Hab. Abaco (P. A. Meers), 4 & type. Exp. 44 mm.

Agaristidæ.

Tuerta hemicycla, sp. n.

3. Head and thorax clothed with brown-red and white hair; tarsi ringed with white; abdomen fulvous, dorsally tinged with red, whitish at base. Forc wing pale olive,

thickly irrorated with brown-red; a subbasal red baud from costa to submedian fold; orbicular and reniform defined by red, with red centres, and with patches of silvery scales on them, a semicircular white mark defining the former and inner edge of latter, which is defined on outer side by an oblique white band from below costa to below vein 4 with sinuous edges; two red lines with silver between them from the semicircular mark to inner margin; a fine terminal line; cilia white and red. Hind wing pale red, the terminal area deep red; cilia white and red; the underside paler.

Hab. Abaco (P. A. Meers), 1 & type. Exp. 30 mm.

Noctuidæ.

A GROTINÆ.

Chloridea armigera, Hübn. Samml. eur. Schmett., Noct. fig. 370 (1827).

Abaco (P. A. Meeres).

Chloridea virescens, Fabr. Spec. Ins. ii. p. 216 (1781). Nassau (Bonhote).

Feltia annexa, Treit. Schmett. Eur. v. p. 154 (1825). Abaco (P. A. Meers); Nassau (Bonhote).

Lycophotia infecta, Ochs. Schmett. Eur. iv. figs. 67, 68 (1816).

Abaco (P. A. Meers).

HADENINÆ.

Leucania unipuncta, Haw. Lep. Brit. p. 177 (1810). Abaco (P. A. Meers).

ACRONYCTINE.

Euplexia leucobasis, sp. n.

Q. Head and thorax pale rufous mixed with black; palpi blackish at sides; tegulæ black, mixed with pale rufous; thorax black; tarsi ringed with white; abdomen fuscous, whitish at base, the ventral surface whitish mixed with fuscous. Fore wing fuscous, suffused with greyish and very sparsely irrorated with white; a sinuous subbasal black line from costa to submedian fold; antemedial line waved, oblique from costa to submedian fold, where it is angled, then inwardly oblique; orbicular round, defined by black; a waved medial line oblique from costa to vein 3, and angled

12*

inwards in submedian fold; reniform hardly traceable; postmedial line waved, bent outwards below costa, incurved slightly at discal fold, incurved below vein 4, and angled inwards in submedian fold; the veins of terminal area streaked with black, interrupted by an obscure subterminal series of small dentate greyish marks. Hind wing with the basal half white, the terminal half fuscous black, with its inner edge irregularly diffused.

Hab. Abaco (P. A. Meers), 1 \, type. Exp. 38 mm.

Euplexia scriptura, Wlk. xv. 1723 (1858). Xylina transversalis, Wlk. xv. 1734 (1858). Abaco (P. A. Meers).

Euplexia subornata, Wlk. xxxii. 682 (1865).

Ochria niveopicta, Butl. P. Z. S. 1878, p. 485.

Abaco (P. A. Meers).

Euplexia albigera, Guen. Noct. i. p. 228 (1852). Nassau; Andros (Bonhote).

Euplexia apameoides, Guen. Noct. i. p. 229 (1852). Andros (Bonhote).

Euplexia agnonia, Druce, P. Z. S. 1890, p. 213. Abaco (P. A. Meers); Andros (Bonhote).

Magusa orbifera, Wlk. xi. 761 (1857).

Magusa strigifera, Wlk. xi. 763 (1857).

Abaco (P. A. Meers); Nassau (Sir G. Carter).

Spodoptera vitrina, Wlk. xi. 718 (1857).

Abaco (P. A. Meers); Nassau (Sir G. Carter).

Caradrina nucicolora, Guen. Noct. i. p. 24, pl. iv. fig. 9 (1852).

Andros (Bonhote).

Fagitana parallela, sp. n.

Head, thorax, and abdomen chocolate-brown; tegulæ with medial white line and white tips. Fore wing chocolate-brown, overlaying a pale colour; an oblique white subbasal striga from cell to vein 1; a narrow oblique white ante-

medial band not reaching costa; reniform narrow, faintly defined by white, produced at upper angle and with a prominent white spot at lower angle of cell; a narrow, oblique, slightly curved, white postmedial band; subterminal band represented by a series of slight brown spots; terminal area greyish; an ill-defined white terminal line. Hind wing chocolate-brown; the underside paler, with discoidal point and curved waved postmedial line.

Hab. Abaco (P. A. Meers), 1 ♂, 3 ♀ type; Nassau (Sir

G. Carter). Exp. 28 mm.

Caularis lunata, sp. n.

9. Head and thorax red-brown, mixed with white; fore tibiæ darker above; abdomen pale yellowish, with indistinct brownish dorsal stripe, the ventral surface whitish, irrorated with brown, the basal crest with some metallic scales. Fore wing chocolate-brown, irrorated with white; a white fascia in submedian fold to postmedial line, arising from base of costa; a grey-green streak below median nervure; orbicular and reniform grey-green, with some metallic blue scales at middle; a chocolate postmedial line, oblique towards costa, excurved at middle and incurved below vein 4, broadly defined by white on inner side from costa to submedian fold, and on outer side by grey-green from below costa to inner margin, with a white fascia in submedian fold from it to termen. Hind wing very pale yellow; a large brown discoidal lunule; a terminal pink band with black points on it above vein 2 and at tornus; a fine terminal dark line; cilia white.

Hab. Nassau (Sir G. Carter), 2 \, type. Exp. 38 mm.

EUTELIANÆ.

Eutelia furcata, Wlk. xxxiii. 815 (1865).

Nassau (Sir G. Carter).

SARROTHRIPINÆ.

Paraxia chamæleon, Moschl. Abh. Senck. Ges. xvi. p. 120 (1890).

Thalpochares laurea, Druce, Biol. Centr.-Am., Het. ii. p. 497, pl. xcv. figs. 26, 27 (1898).

Nassau (Sir G. Carter).

NOCTUINÆ.

Parachabora abydas, Herr.-Schäff. Aussereur. Schmett. fig. 565.

Nassau (Sir G. Carter).

Casandria filifera, Wlk. xi. 719 (1857). Andros (Bonhote).

Casandria poliotis, sp. n.

Head, thorax, and abdomen grey, slightly mixed with fuscous; tegulæ with dark medial line. Fore wing grey, suffused in parts with fuscous; a curved subbasal line from costa to submedian fold; an oblique waved antemedial line angled outwards above inner margin, with more or less prominent blackish marks before it; orbicular and reniform rather small, defined by fuscous and with fuscous centres, the former round, or the stigmata, also the claviform, represented by small black spots, one specimen with a black streak in submedian fold from base to postmedial line; a rufous or black medial line, oblique from costa to lower angle of cell; postmedial line black, excurved beyond the cell, then incurved; subterminal line indistinct whitish, waved, with diffused rufous or fuscous on its inner side. Hind wing whitish, suffused with fuscous, especially on costal and terminal areas.

Hab. Nassau (Sir G. Carter), 2 \eth , 1 \Im type. Exp. 28 mm.

Melipotis ochrodes, Guen. Noct. iii. p. 64 (1852). Abaco (P. A. Meers).

Melipotis marmoraris, Guen. Noct. iii. p. 67 (1852). Abaco (P. A. Meers).

Euglyphia hieroglyphica, Cram. Pap. Exot. pl. exlvii. D (1779).

Nassau (Sir G. Carter).

Litoprosopus hatuey, Poey, Cent. Lép. Cuba (1832). Andros (Bonhote); Nassau (Sir G. Carter).

Thermesia flavilineata, sp. n.

d. Antennæ bipectinate, with short branches; mid-tibia and first tarsal joint fringed with fuscous hair. Head,

thorax, and abdomen grey, the last slightly irrorated with fuscous. Fore wing grey, irrorated with fuscous; traces of slightly waved antemedial and medial lines; reniform small, indistinct; a straight, oblique, postmedial fuscous line, defined on inner side by a pale yellowish line and on outer by fuscous suffusion; subterminal line represented by a series of dark points, excurved from costa to vein 4, then incurved. Hind wing grey, irrorated with fuscous; an oblique fuscous medial line, not reaching costa, defined on inner side by a pale yellowish line and on outer by fuscous suffusion; subterminal line represented by a series of indistinct dark points, excurved at median nervules, then bent inwards to near medial line.

Hab. Nassau (Sir G. Carter), 1 & type. Exp. 38 mm.

Thermesia gemmatalis, Hübn. Zutr. ex. Schmett. i. p. 26, figs. 153, 154 (1827).

Andros (Bonhote); Nassau (Sir G. Carter).

Azeta repygnans, Hübn. Zutr. ex. Schmett. iii. p. 37, figs. 575, 576 (1827).

Nassau (Sir G. Carter).

Poaphila perplexa, Guen. Noct. ii. p. 304 (1852). Abaco (P. A. Meers); Nassau (Sir G. Carter).

Epidromia pannosa, Guen. Noct. iii. p. 326 (1852). Nassau (Sir G. Carter).

Melalectra præcisalis, Hübn. Zutr. ii. p. 29, figs. 367, 368 (1827).

Abaco (P. A. Meers).

Bendis hinna, Hübn., Geyer, Zutr. ex. Schmett. 41. 486, figs. 971, 972 (1827).

Abaco (P. A. Meers).

Pleonectyptera pyralis, Hübn. Samml. ex. Schmett. i. 23. 64, figs. 127, 128 (1827).

Andros (Bonhote); Nassau (Sir G. Carter).

Capnodes concinnula, Wlk. xxxiii. 1074 (1865).
Abaco (P. A. Meers); Nassau (Sir G. Carter).

Acantholipes mesoscota, sp. n.

Q. Head and thorax purplish grey, mixed with fuscous to black; abdomen grey, suffused with brown. Fore wing

purplish grey, irrorated and partly suffused with fuscous; an incurved subbasal line, with a faint waved line beyond it before the slightly waved antemedial line; a fuscous or black band occupying nearly the whole area before the medial line, which is oblique towards costa, then erect; a minutely waved postmedial line, oblique towards costa; subterminal line slightly waved, angled outwards at vein 7 and excurved at middle, some fuscous or black suffusion before it towards costa; a terminal series of black points. Hind wing fuscous brown; the underside grey, irrorated with fuscous; a small discoidal spot and indistinct curved postmedial line.

Hab. Nassau (Sir G. Carter), 2 9 type. Exp. 24 mm.

Cosmophila erosa, Hübn. Zutr. ex. Schmett. ii. 19, figs. 287, 288 (1827).

Abaco (P. A. Meers).

Gonodonta acmeptera, Sepp, Ins. Surin. i. 105, pl. xlix. (1848). Abaco (P. A. Mears); Nassau (Sir G. Carter).

Erastrianæ.

Callopistria floridensis, Guen. Noct. ii. p. 192 (1852). Abaco (P. A. Meers); Nassau (Sir G. Carter).

Baniana metaspilaris, Wlk. xxvii. 126 (1863). Andros (Bonhote).

Ommatochila mundula, Zell. Verh. zool.-bot. Ges. Wien, xxii. p. 460, pl. ii. fig. 4 (1872).

Nassau (Sir G. Carter).

Spragueia margana, Fabr. Ent. Syst. iii. (2) p. 709 (1790). Nassau (Sir G. Carter).

Eublemma laphyra, Druce, P. Z. S. 1890, p. 517; id. Biol. Centr.-Am., Het. ii. p. 498, pl. xevi. fig. 2.

Eublemma rosescens, Hmpsn. Trans. Ent. Soc. 1898, p. 248, pl. xvii. fig. 9.

Abaco (P. A. Meers).

Eublemma flammicincta, Wlk. xxxiii. 801 (1865). Andros (Bonhote).

HYPENINÆ.

Nodaria selenitis, sp. n.

3. Antennæ with the shaft knotted at one third; fore tibia with sheath. Head, thorax, and abdomen brown. Fore wing grey-brown, irrorated with brown; an indistinct antemedial line angled outward in and below cell; orbicular a minute fuscous annulus with ochreous centre; reniform a slight ochreous lunule, with black mark on its outer side and oblique dark shade from it to inner margin; postmedial line indistinct, oblique, minutely waved, defined by pale colour on outer side; subterminal area with fuscous suffusion; a black patch at apex and terminal series of small black spots. Hind wing pale, suffused with brown, especially on terminal area; indistinct diffused medial and postmedial lines; a pale waved subterminal line; a terminal series of black points; the underside whitish, irrorated with brown, and the terminal area suffused with brown; a discoidal lunule, waved postmedial line, and pale waved subterminal line.

Hab. Nassau (Sir G. Carter), 1 & type. Exp. 20 mm.

Nodaria diopis, sp. n.

9. Head, thorax, and abdomen yellowish brown. Fore wing yellowish brown; a curved, minutely waved, subbasal black line from costa to submedian fold; a curved, minutely waved antemedial line, slightly angled outwards below costa; a medial brown shade, with two minute white-pupilled black discoidal ocelli on it; a minutely dentate black postmedial line, excurved from costa to vein 4, then incurved; a diffused fuscous subterminal line, incurved at discal and submedian folds and somewhat dentate at middle; a terminal series of black points. Hind wing fuscous brown, with minutely dentate medial line and diffused subterminal line; the underside pale, thickly irrorated with fuscous; a discoidal lunule, the lines distinct, the subterminal with waved white line on its outer edge; a terminal series of black points.

Hab. Nassau (Sir G. Carter), 2 ? type. Exp. 30 mm.

Nodaria inostentalis, Wlk. Trans. Ent. Soc. (3) i. p. 112 (1862).

Abaco (P. A. Meers); Nassau (Bonhote).

Nodaria priassalis, Wlk. xvi. 123 (1858). Andros (Bonhote). Nodaria utricusalis, Wlk. xvi. 121 (1858). Abaco (P. A. Meers).

Hypena pilosalis, Guen. Delt. & Pyr. p. 33 (1852). Nassau (Sir G. Carter).

Hypena exoletalis, Guen. Delt. & Pyr. p. 29 (1852). Nassau (Sir G. Carter).

Doryodes insularia, sp. n.

J. Head and thorax white, slightly tinged with violaceous; abdomen ochreous white. Fore wing ochreous yellow, the costal and inner areas violaceous white, slightly irrorated with brown, the veins on costal area with slight dark streaks; a white streak on subcostal nervure expanding beyond the cell, but not reaching the fascia from apex; a black discoidal point and sometimes one towards end of cell; a white fascia in lower part of cell extending to rather beyond lower angle; a yellow-brown fascia below the cell, narrowing beyond it and extending to apex, defining above the curved white fascia from apex to middle of submedian fold and which broadens at middle; termen violaceous white, narrowing to a point below apex; a fine dark terminal line. Hind wing ochreous yellow.

Hab. Nassau (Sir G. Carter), 2 & type. Exp. 30 mm. Nearer to D. bistrialis, Hübn., than to D. spadaria, Guen.

= divisa, Wlk.

Sphingidæ.

AMBULACINÆ.

Ambulyx Carteri, Roths. Nov. Zool. ix. Suppl. p. 180, pl. lxvi. fig. 3 and pl. lvii. fig. 12.

Abaco (P. A. Meers).

CHÆROCAMPINÆ.

Chærocampa irrorata, Grote, Proc. Ent. Soc. Philad. v. p. 52, pl. i. fig. 2 (1865).

Abaco (P. A. Meers).

Philampelus vitis, Linn. Syst. Nat. x. p. 491 (1758). Nassau (Sir G. Carter).

Philampelus posticatus, Grote, Proc. Ent. Soc. Philad. v. p. 62 (1865).

Nassau (Sir G. Carter).

- Philampelus labrusca, Linn. Syst. Nat. x. p. 491 (1758). Nassau (Sir G. Carter).
- Anceryx alope, Drury, Ill. Ex. Ent. i. pl. xxvii. fig. 1 (1773). Abaco (P. A. Meers).
- Dilophonota ello, Linn. Syst. Nat. x. p. 491 (1758). Nassau (Bonhote); Andros (Neville Chamberlain).
- Dilophonota obscura, Fabr. Syst. Ent. p. 538 (1775).
 Abaco (P. A. Meers); Andros (Neville Chamberlain).
- Cautethia Grotei, Edw. Pap. ii. p. 10 (1882).

 Abaco (P. A. Meers); Nassau (Lady Blake); Andros (Neville Chamberlain).

Sphinginæ.

- Cocytius Duponcheli, Poey, Cent. Lép. Cuba, fig. 4 (1832). Nassau (Sir G. Carter).
- Protoparce sexta, Johan. Amen. Acad. vi. p. 410 (1863). Nassau (Sir G. Carter).
- Protoparce afflicta, Grote, Proc. Ent. Soc. Philad. v. p. 71 (1865).

Abaco (P. A. Meers).

- Protoparce rustica, Fabr. Syst. Ent. p. 540 (1775). Abaco (P. A. Meers).
- Protoparce brontes, Drury, Ill. Ex. Ins. ii. p. 53, pl. xxix. fig. 4 (1773).

 Nassau (Sir G. Carter).

Macroglossinæ.

- Enyo lugubris, Drury, Mant. Plant. p. 537 (1771). Abaco (P. A. Meers).
- Perigonia lefebræi, Lucas, Sagra's Hist. Cuba, vii. p. 289 (1856).

Abaco (P. A. Meers); Nassau (Sir G. Carter).

Aellopos tantalus, Linn. Syst. Nat. x. p. 493 (1858). Nassau (Sir G. Carter).

Notodontidæ.

Nystalea ebalea, Cram. Pap. Exot. iv. pl. cccx. C (1781). Abaco (P. A. Meers); Nassau (Sir G. Carter).

Saturniadæ.

Automeris Hebe, Wlk. xxxii. 536 (1865). Nassau (Sir G. Carter).

Geometridæ.

BOARMIANÆ.

Merocausta purpuraria, sp. n.

3. Head, thorax, and abdomen purple-brown, mixed with grey. Fore wing purple-brown, suffused with grey and irrorated with fuscous, the postmedial area more chocolate-brown; an ill-defined antemedial dark line angled on median nervure; a chocolate discoidal spot, with dark line from it to inner margin; a dark postmedial line, excurved from costa to discal fold, then oblique; a diffused dark subterminal line; a terminal series of black points. Hind wing red-brown, with obscure dark striæ and indistinet medial and postmedial lines and subterminal line from vein 3 to tornus; the underside greyer and irrorated with fuscous. Hab. Nassau (Sir G. Carter), 1 & type, Exp. 20 mm.

Nassau (Sir G. Carter), 1 & type. Exp. 20 mm

Phrygionis argyrosticta, sp. n.

3. Antennæ bipectinate, with long branches; yellow; head tinged with brown; abdomen with some dark scales on dorsum. Fore wing with subbasal and two antemedial series of dark points with silvery scales on them, the antemedial series incurved below cell; a curved medial series of similar points with another series beyond it between veins 7 and 2; the terminal area striated with brown. Hind wing with the medial area striated with brown; a postmedial line incurved at discal fold; an indistinct silvery subterminal line; a fiery red terminal band irrorated with silver from apex to discal fold, where there is a small ocellus with semicircular black mark on its outer edge; a fiery red stigma on termen near tornus.

Hab. Abaco (P. A. Meers), 1 & type. Exp. 34 mm.

Macaria bifilaria, sp. n.

3. Head, thorax, and abdomen white, the head slightly tinged with rufous. Wings white, irrorated with black and

rusous scales and faintly striated with brown; a dark subbasal point below costa; a curved antemedial line; an oblique rusous striga from middle of cell and indistinct line from origin of vein 2 to inner margin; a discoidal striga; a double postmedial line, the inner grey, the outer rusous, slightly incurved at vein 4 and ending at tornus, some black points before it on the veins; termen excised below apex, with a rusous lunule at the excision and some striæ towards tornus. Hind wing with indistinct antemedial line; a black discoidal point; a double, almost straight line from apex to tornus, the inner grey, the outer rusous; the terminal area strongly irrorated; the termen produced to an acute point at vein 4 and with some terminal black bands.

Hab. Nassau (Sir G. Carter), 2 & type. Exp. 26 mm.

Tephrina continuata, Wlk. xxv. 1445 (1862).

Andros (Bonhote).

Drepanodes moneta, Druce, Biol. Centr.-Am., Het. ii. p. 30, pl. xliv. fig. 2 (1890).

Abaco (P. A. Meers); Nassau (Sir G. Carter).

Acrosemia dichorda, sp. n.

Q. Purplish red-brown, the wings thickly striated with fuscous. Fore wing with slightly curved antemedial line defined by flesh-colour on inner side; a black discoidal point; an almost straight postmedial line defined by flesh-colour on outer side. Hind wing with black discoidal point; a slightly curved postmedial line defined by flesh-colour on outer side. Underside much paler.

Hab. Abaco (P. A. Meers), 1 \(\gamma\) type. Exp. 38 mm.

Oxydia vesulia, Cram. Pap. Exot. iii. p. 79, pl. ccxl. B, C (1779).

Nassau (Sir G. Carter).

Azellina vetustaria, Wlk. xxxv. 1550 (1866).

Nassau (Sir G. Carter).

Brotis vulneraria, Hübn. Samml. exot. Schmett. ii. p. 23, figs. 319, 320 (1827).

Nassau (Sir G. Carter).

ORTHOSTIXINÆ.

Mecoceras nitocris, Cram. Pap. Exot. iii. p. 148, pl. cclxxv. A (1779).

Nassau (Sir G. Carter).

Zanclopteryx uniferata, Wlk. xxvi. 1634 (1862). Nassau (Sir G. Carter).

LARENTIANÆ.

Cidaria fluviata, Hübn. Samml. eur. Schmett., Geom. figs. 280, 281 (1827).

Abaco (P. A. Meers).

Cidaria anomala, Butl. P. Z. S. 1878, p. 491.

Abaco (P. A. Meers); Andros (Bonhote).

Dyspteris abortivaria, Herr.-Schäff. Aussereur. Schmett. fig. 346 (1850).

Andros (Bonhote).

Eupethecia miserulata, Grote, Proc. Ent. Soc. Phil. ii. p. 32 (1863).

Abaco (P. A. Meers).

GEOMETRINÆ.

Geometra congruata, Wlk. xxii. 511 (1861). Nassau; Andros (Bonhote).

Geometra cupedinaria, Grote, Can. Ent. xii. p. 218 (1880).
Abaco (P. A. Meers); Nassau (Sir G. Carter); Andros (Bonhote).

Euchloris heterospila, sp. n.

Q. Yellow-green; palpi and antennæ pink and white. Fore wing with the costal edge pink; an antemedial series of three blackish points on the veins; a discoidal point; a postmedial series of points incurved below vein 2 and with a white spot edged with black and reddish on it between veins 2 and 3, sometimes connected with termen by a reddish streak; cilia reddish, tipped with white. Hind wing with discoidal dark point and curved postmedial series on the veins; cilia reddish, white at tips. Underside greenish vellow.

Ab. 1. Fore wing with the patch on outer side of postmedial points extending from above vein 6 to below submedian fold and formed of a series of conjoined, elongate, white spots edged by blackish and red. Hind wing with elliptical white spots edged with blackish and red on outer

side of postmedial points between veins 4 and 2.

Hab. Abaco (P. A. Meers), 2 \(\varphi\) type; Nassau (Sir G. Carter); St. Lucia, 2 \(\varphi\). Exp. 24-32 mm.

ACIDALIANÆ.

Anisodes calidata, Wlk. xxvi. 1599 (1862).

Abaco (P. A. Meers).

Anisodes myrtaria, Guen. Ur. & Phal. i. p. 408, pl. ii. fig. 7 (1857).

Abaco (P. A. Meers).

Semœopus micropis, sp. n.

Q. Pale ochrous brown, with a slight olive tinge; head rather darker; wings thickly irrorated with fuscous. Fore wing with minute white-pupilled, fuscous, discoidal occllus; an indistinct, oblique, dentate, postmedial line bent inwards to costa: a fine brown terminal line. Hind wing with small, white-pupilled, fuscous, discoidal occllus; an indistinct, almost straight, dentate postmedial line; a fine brown terminal line.

Hab. Nassan (Sir G. Carter), 1 ♀ type. Exp. 36 mm.

Craspedia turbata, Wlk. xxvi. 1755 (1862).

Abaco (P. A. Meers).

Craspedia cymiphora, sp. n.

3. White, irrorated with fuscous; palpi and frons black; hind tibiæ without spurs, but not dilated. Fore wing with the costal edge fuscous towards base; an indistinct antemedial line excurved from costa to median nervure, then incurved; a prominent black discoidal point; postmedial line incurved at discal and submedian folds; two minutely-waved subterminal lines incurved at discal and submedian folds; a terminal series of brown striæ. Hind wing with prominent, black, discoidal striga; an indistinct postmedial line incurved at discal and submedian folds, with a more prominent line beyond it, strongly incurved at discal and submedian folds; a diffused, waved, subterminal line; a terminal series of brown striæ.

Hab. Abaco (P. A. Meers), & type. Exp. 20 mm.

Craspedia ossularia, Hübn. Zutr. ex. Schmett. fig. 909 (1837).

Abaco (P. A. Meers).

Lasiocampidæ.

Artace punctistriga, Wlk. vi. 1491 (1855). Abaco (P. A. Meers).

Perophoridæ.

Perophora egenaria, Wlk. xxxv. 1575 (1866).

Abaco (P. A. Meers); Nassau (Sir G. Carter); Andros (Bonhote).

Cossidæ.

Duomitus benestriata, sp. n.

3. Head and thorax white, tinged with brown, the thorax with large, blackish, dorsal patch; palpi and sides of frons blackish. Fore wing whitish, rather sparsely marked with coarse brown striæ, those on costal area before middle black; a small, black, discoidal lunule. Hind wing white, with series of small fuscous spots on the cilia.

Hab. Abaco (P. A. Meers), 1 & type. Exp. 40 mm.

Psychidæ.

ŒCETICINÆ.

Thyridopteryx ephæmeriformis, Haw. Lep. Brit. p. 72 (1803). Nassau (Sir G. Carter, Bonhote).

PSYCHINÆ.

Thanatopsyche apicalis, sp. n.

3. Head, thorax, and abdomen black; patagia with large white patches: wings hyaline, irrorated with black hairs, the veins and margins black; fore wing with the terminal half of costal area suffused with black; hind wing with the inner area black.

Hab. Abaco (P. A. Meers), 3 & type. Exp. 24 mm.

Zygænidæ.

ZYGÆNINÆ.

Nesaca albimacula, sp. n.

3. Black, with a bluish tinge; palpi and frons white; shoulders and metathorax with white spots; base of hind tibiæ streaked with white; abdomen with lateral white streaks at base, followed by a series of white points, and a yellowish spot on terminal segment. Fore wing with fine white streak below the cell and bar-shaped, white, discoidal spot.

Hab. Nassau (Sir G. Carter), 1 & type. Exp. 20 mm.

Thyrididæ.

Hexeris enhydris, Grote, Can. Ent. vii. p. 176 (1875). Abaco (P. A. Meers).

Pyralidæ.

CRAMBINÆ.

Crambus hastiferellus, Wlk. xxvii. 155 (1863). Nassau (Sir G. Carter); Andros (Bonhote).

Crambus profanellus, Wlk. xxxv. 1753 (1866). Andros (Bonhote).

Platytes lacteella, Fabr. Ent. Syst. iii. 2, p. 313 (1794). Nassau (Sir G. Carter).

Dicymolomia pegasalis, Wlk. xvii. 438 (1859). Abaco (P. A. Meers); Nassau (Sir G. Carter).

SCHŒNOBIANÆ.

Scirpophaga leucatea, Zell. Mon. Chil. & Cramb. p. 2 (1863). Nassau (Sir G. Carter).

Scirpophaga perstrialis, Hübn. Samml. exot. Schmett. figs. 457, 458 (1827).

Nassau (Sir G. Carter).

Scirpophaga repugnatalis, Wlk. xxvii. 144 (1859). Chilo funerellus, Hmpsn. A. M. N. H. (7) vii. p. 254 (1901). Nassau (Sir G. Carter).

Scirpophaga holophæalis, sp. n.

J. Head and thorax brownish grey; abdomen ochreous, the ventral surface brownish grey. Fore wing ochreous grey-brown, the cell and area just below and beyond it slightly darker. Hind wing fuscous brown.

Hab. Abaco (P. A. Meers), 2 & type; Brit. Guiana, 1 &.

Exp. 28-32 mm.

$P_{HYCITINÆ}$.

Euzopherodes megalopalis, sp. n.

3. Head and thorax reddish brown, tinged with fuscous; tibiæ and tarsi banded with grey; abdomen grey-brown, Ann. & Maq. N. Hist. Ser. 7. Vol. xiv. 13

with pale segmental lines. Fore wing brown mixed with purplish red and irrorated with grey; the medial costal area fuscous; a patch of grey scales on costa near base; an almost medial, oblique, strong, grey-white, antemedial, straight line; a black discoidal lunule on a grey patch which extends to costa, a strong, grey, postmedial line slightly excurved at middle; some grey on termen. Hind wing semihyaline whitish, the veins and termen tinged with brown; a fine terminal brown line; cilia brownish.

Hab. Nassau (Sir G. Carter), 1 & type. Exp. 14 mm.

Genus Eutrichocera, nov.

Palpi slender, upturned to above vertex of head; maxillary palpi dilated with scales; antennæ of male with immensely long cilia. Fore wing with the cell very short; veins 3, 4, 5 stalked; 8, 9, 10 stalked; 11 from cell. Hind wing with the cell very short; veins 4, 5 stalked, and 3 approximated to them for some distance; 6, 7 from upper angle, and 8 anastomosing with 7.

Eutrichocera paurolepidalis, sp. n.

J. Head, thorax, and abdomen grey, tinged with brown. Fore wing thinly scaled, grey tinged with brown and irrorated with fuscous, especially on the veins: the antemedial line represented by tufts of black scales in and below cell and on vein 1; two very indistinct medial lines excurved beyond cell, then incurved; postmedial line defined by grey on outer side and produced to short streaks on the veins, excurved from costa to vein 3, then incurved, and excurved again above inner margin; a maculate, terminal, black line. Hind wing semihyaline white, the veins tinged with brown; a brown terminal line.

Hab. Abaco (P. A. Meers), 2 & type. Exp. 22 mm.

Phycita (Pinipestis) Zimmermanni, Grote, Can. Ent. ix. p. 161 (1877).

Abaco (P. A. Meers).

Phycita (Dioryctria) abietella, Schiff. Wien. Verz. x. p. 138 (1776).

Abaco (P. A. Meers).

EPIPASCHIANÆ.

Tioga atrifascialis, Hulst, Trans. Am. Ent. Soc. xiii. p. 160 (1886).

Nassau (Sir G. Carter).

Macalla thyrsisalis, Wlk. xvi. 156 (1858). Abaco (P. A. Meers).

CHRYSAUGINÆ.

Salobrena rubiginea, Hmpsn. P. Z. S. 1897, p. 642. Nassau (Sir G. Carter).

Tetraschistis leucogramma, sp. n.

? Head and thorax reddish brown; hind tarsi whitish; abdomen greyish fuscous. Fore wing purplish grey-brown with slight dark irroration; rufous patches on costal area before the antemedial and beyond the postmedial lines; the lines pure white and prominent, the antemedial slightly excurved below costa, then oblique, the postmedial slightly incurved below costa, then excurved; a fine dark terminal line. Hind wing fuscous brown, with white postmedial line almost obsolete on costal half; a fine dark terminal line.

Hab. Nassau (Sir G. Carter), 1 \cong type. Exp. 22 mm.

Parachma ocracealis, Wlk. xxxiv. 1263 (1865). Andros (Bonhote).

Galasa rubidana, Wlk. xxxv. 1802 (1866). Abaco (P. A. Meers).

Caphys bilinea, Wlk. xxvii. 13 (1863). Audros (Bonhote).

Bonchis munitalis, Led. Wien. ent. Mon. 1863, p. 55, pl. vi. fig. 13.

Nassau (Sir G. Carter).

Ilydrocampinæ.

Nymphula endoralis, Wlk. xvii. 459 (1859). Andros (Bonhote).

Pyraustinæ.

Symphysa eripalis, Grote, Can. Ent. x. p. 29 (1878). Nassau (Sir G. Carter).

Zinckenia perspectalis, Hübn. Samml. eur. Schmett., Pyr. fig. 101 (1827).

Nassau (Sir G. Carter).

Desmia funeralis, Hübn. Samml. eur. Schmett., Pyr. fig. 103 (1827).

Abaco (P. A. Meers).

Desmia ufeus, Cram. Pap. Exot. ii. p. 2, pl. xcvii. E (1779). Nassau (Sir G. Carter); Andros (Bonhote).

Desmia ploralis, Guen. Delt. & Pyr. p. 192 (1854). Andros (Bonhote).

Desmia microstictalis, sp. n.

Q. Black; throat, base of palpi and extremity of second joint, sides of frons, basal joint of antennæ in front, and marks behind antennæ white; metathorax with white spots; pectus mixed with white; legs banded with white; abdomen with medial white band and segmental lines on terminal segments, the ventral surface with white bands. Fore wing with two white points at base; an antemedial bar in cell; a medial round spot in cell and point below the cell; an elliptical patch beyond the cell between veins 7 and 4, with rather dentate outer edge; cilia white at apex and tornus. Hind wing with irregular, antemedial, white patch from below costa to inner margin, followed by a fine white line below the cell; an irregular patch beyond the cell between veins 7 and 3; a fine white terminal line; cilia white at tips, at apex, and towards tornus.

Hab. Abaco (P. A. Meers), 2 ♀ type. Exp. 24 mm.

Ercta ornatalis, Dup. Lép. Fr. vii. p. 207, pl. cexxiii. fig. 8 (1831).

Nassau (Bonhote).

Pilocrocis gastralis, Guen. Delt. & Pyr. p. 346 (1854). Nassau (Sir G. Carter).

Pilocrocis tristigmalis, Hmpsn. P. Z. S. 1898, p. 659. Abaca (P. A. Meers); Andros (Bonhote).

Conchylodes diphteralis, Geyer, Zutr. 24, 346, figs. 691, 692 (1827).

Abaco (P. A. Meers); Nassau (Sir G. Carter).

Nacoleia zoilusalis, Wlk. xviii. 603 (1859). Nassau (Sir G. Carter).

Nacoleia albicinctalis, sp. n.

9. Dull reddish brown; palpi at base and throat white; abdomen with white segmental lines to second and third segments, the rest of third segment suffused with black, the other segments with slight black and white lines. Fore wing

with subbasal and broad black antemedial straight lines; a black discoidal spot; some black irroration below cell on medial area; a strong, black, postmedial line defined by white on outer side, angled at vein 4, then incurved. Hind wing slightly tinged with fuscons; a straight, oblique, postmedial line slightly defined by white on outer side; a black terminal line; cilia white at base; the underside whitish, with some black irroration, the costal and terminal areas tinged with brown, a black discoidal point and slightly waved postmedial line.

Hab. Abaco (P. A. Meers), 1 \circ type. Exp. 26 mm.

Nacoleia infuscalis, sp. n.

Q. Head and thorax fuseous brown and grey; antennæ annulated with black; tibiæ banded with black. Fore wing pale brownish, irrorated and suffused with fuseous; an ill-defined blackish subdorsal line; an ill-defined, antemedial, slightly curved band; an obscure spot at middle of cell; a pale discoidal lunule defined by diffused fuseous; the postmedial line angled outwards below costa, incurved at discal fold, excurved to vein 2, then retracted to below end of cell; a crenulate terminal line with some whitish beyond it; a black line at base of cilia. Hind wing whitish, irrorated and suffused with fuseous; an oblique medial line; the postmedial line bent outwards at vein 4 and ending on termen above tornus; a crenulate terminal line, except towards tornus, with some whitish beyond it.

Hab. Nassau (Bonhote), 1 & type. Exp. 12 mm.

Nacoleia binoculalis, sp. n.

Q. Head, thorax, and abdomen pale grey-brown; pectus, legs, and ventral surface of abdomen whitish. Fore wing pale grey-brown, thickly irrorated with fuscous, the costal and terminal areas rather darker; traces of a waved subbasal line; an indistinct, oblique, waved, antemedial line; a small fuscous ocellus in middle of cell and reniform discoidal spot; postmedial line slightly angled inwards at discal fold, at vein 2 retracted to lower angle of cell, then excurved again; a terminal series of fuscous points. Hind wing semihyaline white, the apical area tinged with brown; a discoidal stigma; a fine postmedial line angled inwards at discal fold and obsolete on inner half; a terminal punctiform line.

Hab. Abaco (P. A. Meers), 1 2 type. Exp. 22 mm.

Sylepta ceresalis, Wlk. xviii. 581 (1859).

Nassau; Andros (Bonhote).

Lygropia fusalis, sp. n.

d. Fore wing with the retinaculum formed by a large fan of scales. Head, thorax, and abdomen fuscous brown mixed with whitish; palpi white below; legs white, the fore tibize banded with fuscous; abdomen white below, the anal tuft ochreous. Fore wing fuscous grey, with diffused, fuscous, medial band, its outer edge somewhat angled outwards at middle; a patch on costa before apex. Hind wing fuscous grey, the base, costal area to near apex, and inner margin pale yellow; a diffused, fuscous, medial band from cell to above inner margin. Underside yellow; fore wing with the costal area fuscous to beyond middle, confluent with a large patch in and beyond end of cell, with a yellow discoidal spot on it, the terminal area fuscous, broad at costa, narrowing to a point at tornus; hind wing with discoidal lunule and apical fuscous patch.

Hab. Andros (Bonhote), 1 & type. Exp. 18 mm.

Glyphodes phlegia, Cram. Pap. Exot. ii. p. 66, pl. cxl. D (1779).

Nassau (Sir G. Carter).

Glyphodes nitidalis, Cram. Pap. Exot. iv. p. 160, pl. ccclxxi. F (1781).

Abaco (P. A. Meers); Nassau (Sir G. Carter).

Leucinodes elegantalis, Guen. Delt. & Pyr. p. 222, pl. iii. fig. 8 (1854).

Abaco (P. A. Meers); Nassau (Bonhote).

Ommatospila narcæusalis, Wlk. xix. 972 (1859). Nassau (Sir G. Carter).

Azochis rufidiscalis, sp. n.

3. Head and thorax black-brown mixed with rufous, especially on palpi, tegulæ, and metathorax; pectus and legs white; abdomen white, with rufous dorsal patch on second to fifth segments, the anal tuft black at middle. Fore wing white; a blackish and rufous basal patch with curved outer edge; a fuscous and black patch in and beyond end of cell, constricted below the cell and extending to submedian fold, with a small round white spot on it in end of cell, followed by a triangular, rufous, discoidal mark from costa, a rufous point below it on vein 1; a fuscous and rufous postmedial line oblique from costa to vein 5 and ending at tornus; a small,

triangular, black mark on termen between veins 6 and 4-with one or two points above it. Hind wing semihyaline white; a patch of black scales near tornus, with some fuscous scales between it and lower angle of cell; a slight fuscons postmedial line between veins 6 and 4, then excurved to termen; some black on termen between apex and vein 4.

Hab. Nassau (Sir G. Carter), 2 & type. Exp. 26 mm.

Nomophila noctuella, Schiff. Wien. Verz. p. 136 (1776). Abaco (P. A. Meers); Nassau (Sir G. Carter).

Phlyctanodes nasonialis, Zell. Verh. zool.-bot. Ver. Wien, 1873, p. 208, pl. iii. fig. 4.
Abaco (P. A. Meers).

Mecyna reversalis, Guen. Delt. & Pyr. p. 409 (1854). Nassau (Sir G. Carter).

Bwotarcha stigmosalis, Warr. A. M. N. H. (6) ix. p. 249 (1892).

Abaco (P. A. Meers); Nassau (Sir G. Carter).

Pionea subrosea, Warr. A. M. N. H. (6) ix. p. 441 (1892).
Abaco (P. A. Meers).

Pionea eupalusalis, Wlk. xviii. 605 (1859). Abaco (P. A. Meers).

Pionea vinotinctalis, Hmpsn. A. M. N. H. (6) xvi. p. 340 (1895).

Andros (Bonhote).

Pyrausta mellinalis, Hübn. Zutr. i. 24. 69, figs. 137, 138 (1827).

Abaco (P. A. Meers); Nassau (Sir G. Carter).

Pyrausta adipaloides, Grote & Rob. Trans. Am. Ent. Soc. i. p. 27, pl. ii. fig. 19 (1867).

Abaco (P. A. Meers).

Pyrausta phænicealis, Hübn. Verz. p. 348 (1827). Nassau (Sir G. Carter).

Pyrausta pyropsalis, sp. n.

3. Head and thorax red-brown; tegulæ and patagia with some fiery red scales; pectus and legs white, the tibuæ and tarsi banded with brown; abdomen white dorsally tinged

with red-brown. Fore wing red-brown; a fiery red spot at base, the area just before antemedial line and the medial area, except towards costa, fiery red; the antemedial line very indistinct; ill-defined red-brown spots in middle and end of cell; postmedial line indistinct, excurved and minutely waved from costa to vein 3, then retracted to below end of cell; some diffused fiery red on terminal area at apex and below middle; a terminal series of black points. Hind wing ochreous white, suffused with brown towards termen; the underside with traces of postmedial line on costal area.

Hab. Abaco (P. A. Meers), 2 3; Andros (Bonhote), 1 3

type. Exp. 26 mm.

Stenoptycha pterophoralis, Wlk. xxxiv. 1340 (1865).

Nassau (Sir G. Carter).

XXVII.—New Callithrix, Midas, Felis, Rhipidomys, and Proechimys from Brazil and Ecuador. By OLDFIELD THOMAS.

Callithrix penicillata jordani, subsp. n.

Mr. Robert has obtained two series of marmosets referable to Callithrix penicillata, Geoff., one from Lamarão, near Bahia, and the other from the Rio Jordão, Province Araguay, Minas Geraes. The former, on geographical grounds, may be regarded as the true penicillata, which was simply described as from Brazil, and from this animal the Jordão form appears to differ sufficiently to deserve subspecific distinction.

Size averaging slightly larger than in penicillata. General tone of the light colour of the back buffy whitish instead of pure greyish white. Under surface with less black on the throat, this part being grey, only slightly washed with blackish; the black, however, tends to form a black central line over the sternum. Belly and anterior face of thighs strongly suffused with dull yellowish, the hairs of penicillata being blackish tipped with white over the whole under surface. Flank-hairs, where overhanging belly, less vividly coloured, their bases dark slaty instead of black; their next ring dull instead of vivid orange, and their subterminal dark band narrower and less conspicuous. Face less brightly picked out with black and white, the white patches below the